

JVC



CASSETTE RECEIVER

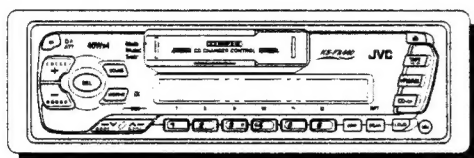
KS-FX440/FX240

RECEPTOR-REPRODUCTOR DE
CASSETTE

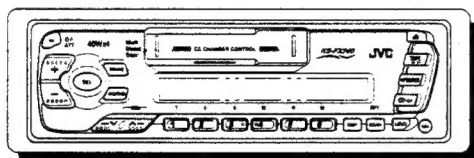
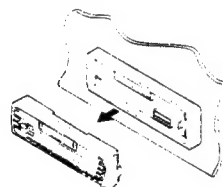
KS-FX440/FX240

RADIOCASSETTE

KS-FX440/FX240



KS-FX440



KS-FX240

For installation and connections, refer to the separate manual.
Para la instalación y las conexiones, refiérase al manual separado.
Pour l'installation et les raccordements, se référer au manuel séparé.

INSTRUCTIONS MANUAL DE INSTRUCCIONES MANUEL D'INSTRUCTIONS

For customer Use:
Enter below the Model No. and
Serial No. which are located on
the top or bottom of the cabinet.
Retain this information for future
reference.

Model No. _____

Serial No. _____

FSUN3058-631
[J]

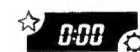
ENGLISH

ESPAÑOL

FRANÇAIS

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BEFORE USE

- * For safety....
- * Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- * Stop the car before performing any complicated operations.

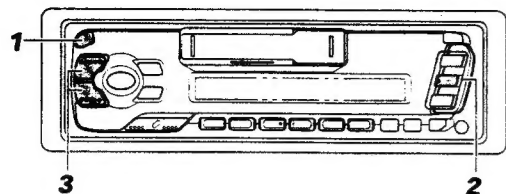
* Temperature inside the car...

If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

Instructions

KS-FX440
KS-FX240

BASIC OPERATIONS



Note:

When you use this unit for the first time, set the built-in clock correctly, see page 15.

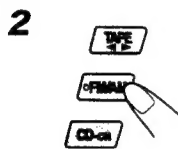
ENGLISH



Turn on the power.

Note on One-Touch Operation:

When you select a source in step 2 below, the power automatically comes on. You do not have to press this button to turn on the power.

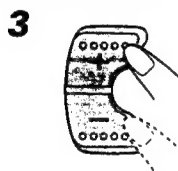


Select the source.

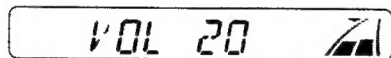
To operate the tuner, see pages 4 – 8.

To operate the tape deck, see pages 9 – 11.

To operate the CD changer, see pages 18 – 20.



Adjust the volume.



Volume level appears.

4

Adjust the sound as you want (see pages 12 – 14).

To drop the volume in a moment

Press \odot /ATT briefly while listening to any source. "ATT" starts flashing on the display, and the volume level will drop in a moment.

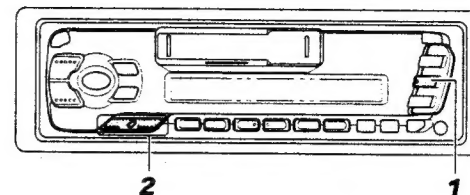
To resume the previous volume level, press the button briefly again.

To turn off the power

Press \odot /ATT for more than 1 second.

RADIO OPERATIONS

Listening to the radio

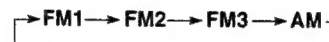


1

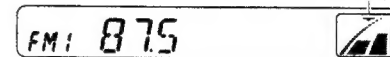


Select the band (FM1, FM2, FM3 or AM).

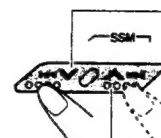
You can select any one of FM1, FM2, and FM3 to listen to an FM station.



Audio level indicator



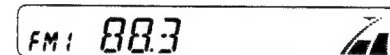
2



To search stations of lower frequencies.

Start searching a station.

When a station is received, searching stops.



To search stations of higher frequencies.

To stop searching before a station is received, press the same button you have pressed for searching.

To tune in a particular frequency manually:

1 Press FM/AM to select the band.

2 Press and hold \llcorner or \lrcorner until "M" starts flashing on the display.

Now you can manually change the frequency while "M" is flashing.

3 Press \llcorner or \lrcorner repeatedly until the frequency you want is reached.

• If you hold down the button, the frequency keeps changing until you release the button.

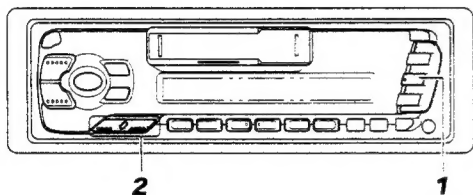
Storing stations in memory

You can use one of the following two methods to store broadcasting stations in memory.

- Automatic preset of FM stations: SSM (Strong-station Sequential Memory)
- Manual preset of both FM and AM stations

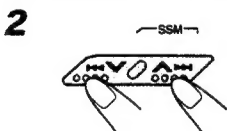
FM station automatic preset: SSM

You can preset 6 local FM stations in each FM band (FM1, FM2, and FM3).



FM1 → FM2 → FM3 →

Select the FM band number (FM1, FM2 or FM3) you want to store FM stations into.



Press and hold the both buttons for more than 2 seconds.

FM1 55M

"SSM" appears, then disappears when automatic preset is over.

Local FM stations with the strongest signals are searched and stored automatically in the band number you have selected (FM1, FM2 or FM3). These stations are preset in the number buttons — No. 1 (lowest frequency) to No. 6 (highest frequency).

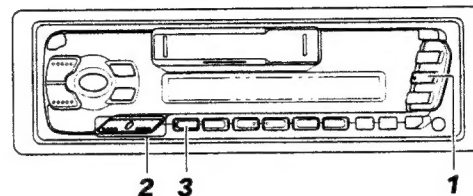
When automatic preset is over, the station stored in number button 1 will be automatically tuned in.

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Manual preset

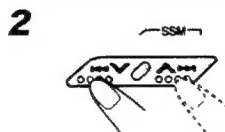
You can preset up to 6 stations in each band (FM1, FM2, FM3 and AM) manually.

EXAMPLE: Storing an FM station of 88.3 MHz into the preset number 1 of the FM1 band



Select the FM1 band.

FM1 87.5



Tune into a station of 88.3 MHz.

See page 4 to tune into a station.

FM1 88.3



Press and hold the button for more than 2 seconds.

FM1 88.3 P1

Preset number "P1" starts flashing for a while.

4 Repeat the above procedure to store other station into other preset numbers.

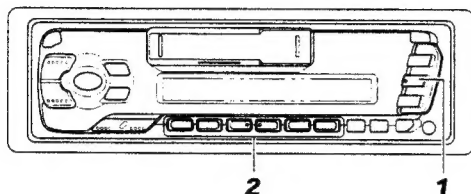
Notes:

- A previously preset station is erased when a new station is stored in the same preset number.
- Preset stations are erased when the power supply to the memory circuit is interrupted (for example, during battery replacement). If this occurs, preset the stations again.

KS-FX440
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Tuning into a preset station

You can easily tune into a preset station.
Remember that you must store stations first. If you have not stored them yet, see pages 5 and 6.



1



Select the band (FM1, FM2, FM3 or AM) you want.

→ FM1 → FM2 → FM3 → AM

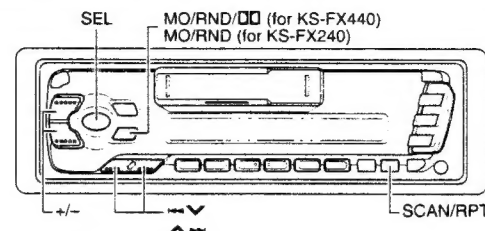
2



Select the number (1 – 6) for the preset station you want.

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Other convenient tuner functions



Scanning broadcast stations

When you press SCAN/RPT while listening to the radio, station scanning starts. Each time a broadcast is tuned in, scanning stops for about 5 seconds (tuned frequency number flashes on the display), and you can check what program is now being broadcast.

If you want to listen to that program, press the same button again to stop scanning.

Selecting FM reception sound

When an FM stereo broadcast is hard to receive:

Press MO/RND/□□ (mono/random/Dolby NR: for KS-FX440) or MO/RND (mono/random: for KS-FX240) while listening to an FM stereo broadcast. The sound you hear becomes monaural but reception will be improved.

Lights up when receiving an FM broadcast in stereo.



To restore the stereo effect, press the same button again.

Changing the AM/FM channel intervals

When using this unit in an area other than North or South America:

When this unit is shipped from the factory, the channel intervals are set to 10 kHz for AM and 200 kHz for FM. You can change the channel intervals by following the procedure below.

1 Press SEL (select) for more than 2 seconds.

"LEVEL", "CLOCK H", "CLOCK M" or "AREA" appears on the display.

2 If "AREA" does not appear, press ◀◀ or ▶▶ until it appears.

3 Press +.

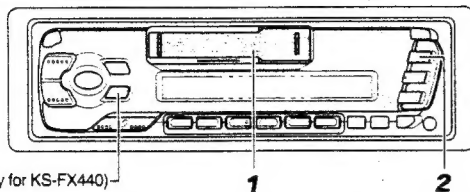
"AREA EU" appears and the channel intervals are set to 9 kHz for AM and 50 kHz (for manual tuning) / 100 kHz (for searching) for FM.

To reset to the factory setting, follow the above step 1 and 2, then press – in step 3 ("AREA US" appears on the display.)

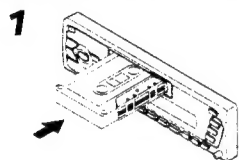
AREA EU: Select this when used in an area other than North and South America.
AREA US: Select this when used in North or South America.

TAPE OPERATIONS

Listening to a tape



3 (Only for KS-FX440)



1 Insert a cassette.

The unit turns on and tape play starts automatically. When one side of the tape reaches its end during play, the other side of the tape automatically starts playing. (Auto Reverse)

Note on One-Touch Operation:

When a cassette is already in the cassette compartment, pressing TAPE ◀▶ turns on the unit and starts tape play automatically.



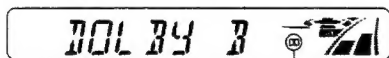
2 Select the tape direction.

Each time you press the button, the tape direction changes alternatively – forward (TAPE : : :) and reverse (TAPE : : :).



3 Turn on or off the Dolby B NR* as needed.

Each time you press the button, the Dolby B NR turns on and off. (Only for KS-FX440)




This indicator lights up when the Dolby B NR is turned on.

To stop play and eject the cassette

Press ▲.

Tape play stops and the cassette automatically ejects from the cassette compartment. If you change the source to AM/FM or CD changer, the tape play also stops (without ejecting the cassette this time).

• You can also eject the tape with the unit turned off.

* Dolby Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

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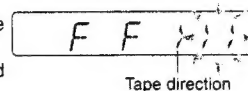


To fast-forward and rewind a tape

• Press ▲▶▶ for more than 1 second to fast-forward the tape.

When the tape reaches its end, the tape is reversed and playback starts from the beginning of the other side.

• Press ◀◀▼ for more than 1 second to rewind the tape. When the tape reaches its end, playback of the same side starts.



Tape direction

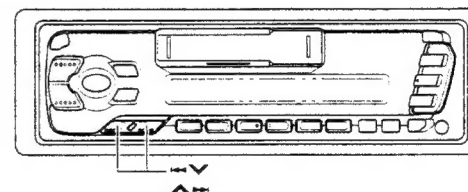


To stop fast-forward and rewind at any position on the tape, press TAPE ◀▶.

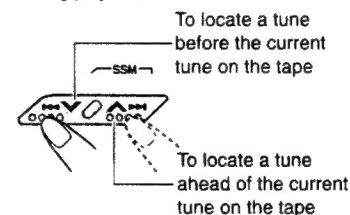
Tape play starts from that position on the tape.

Finding the beginning of a tune

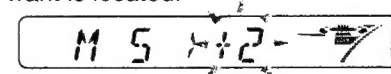
Multi Music Scan allows you to automatically start playback from the beginning of a specified tune. You can specify up to 9 tunes ahead or before the current tune.



During playback



Specify how many tunes ahead or before the current tune the tune you want is located.



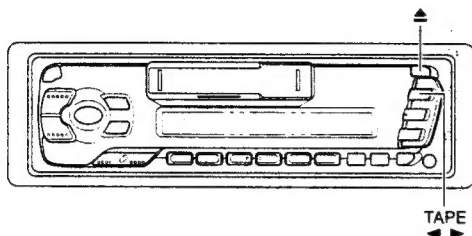
Each time you set the tune, the number changes up to ±9.

When the beginning of the specified tune is located, playback starts automatically.

Notes:

- While locating a specified tune:
 - If the tape is rewound to its beginning, playback starts from the beginning of that side.
 - If the tape is fast forwarded to the end, it is reversed and played from the beginning of the other side.
- In the following cases, the Multi Music Scan function may not operate correctly.
 - Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions during tunes.
 - Tapes with short non-recorded sections.
 - Tapes with high level noise or humming between tunes.

Other convenient tape functions



Prohibiting tape ejection

You can prohibit the tape ejection and can "lock" a tape in the cassette compartment. Press and hold **TAPE** ◀▶ and ▲ for more than 2 seconds. "EJECT" flashes on the display for about 5 seconds, and the tape is "locked."

To cancel the prohibition and "unlock" the tape, press and hold **TAPE** ◀▶ and ▲ for more than 2 seconds again. "EJECT" flashes again for about 5 seconds, and this time the tape is "unlock."

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SOUND ADJUSTMENTS

Turning on/off the loudness function

The human ear is less sensitive to low and high frequencies at low volumes. The loudness function can boost these frequencies to produce a well-balanced sound at low volume level.

Each time you press **LOUD**, the loudness function turns on/off alternatively.



LOUD ON ↔ LOUD OFF

Selecting preset sound modes

You can select a preset sound adjustment suitable to the music genre.

Each time you press **SOUND**, the sound mode changes as follows.



SCM OFF → BEAT → SOFT → POP

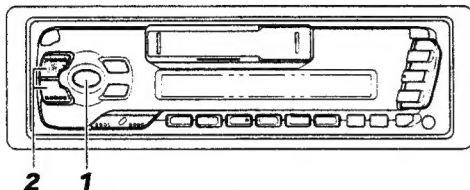
Indication	For:	Preset values		
		Bass	Treble	Loudness
SCM OFF	(Flat sound)	00	00	On
BEAT	Rock or disco music	+2	00	On
SOFT	Quiet background music	+1	-3	Off
POP	Light music	+4	+1	Off

Notes:

- You can adjust the preset sound mode as you like, and store in memory. If you want to adjust and store your original sound mode, see "Storing your own sound adjustments" on page 14.
- To adjust only the bass and treble reinforcement levels as you like, see "Adjusting the sound" on page 13.

Adjusting the sound

You can adjust the treble/bass sounds and the speaker balance.



1



Select the item you want to adjust.

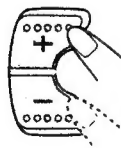
BAS → TRE → FAD → BAL → VOL

Indication	To do:	Range
BAS (bass)	Adjust the bass	-6 (min.) — +6 (max.)
TRE (treble)	Adjust the treble	-6 (min.) — +6 (max.)
FAD (Fader)*	Adjust the front and rear speaker balance	R6 (rear only) — F6 (front only)
BAL (Balance)	Adjust the left and right speaker balance	L6 (left only) — R6 (right only)
VOL (Volume)	Adjust the volume	00 (min.) — 50 (max.)

Note:

* If you are using a two-speaker system, set the fader level to "00" (center).

2



Adjust the level.

Note:

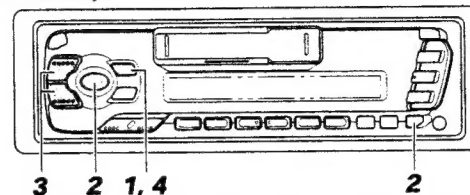
Normally the + and - buttons work as the volume control buttons. So you do not have to select "VOL" to adjust the volume level.

13



Storing your own sound adjustments

You can adjust the sound modes (BEAT, SOFT, POP: see page 12) as you like and store your own adjustments in memory.



1



Call up the sound mode you want to adjust.
See page 12 for details.

Within 5 seconds

2



To adjust the bass or treble sound level
Select "BAS" or "TRE."



To turn on or off the loudness function
Each time you press LOUD, the loudness function turns on and off alternatively. (→ go to step 4)

Within 5 seconds

3



Adjust the bass or treble level.
See page 13 for details.

Within 5 seconds

4



Press and hold SOUND until the sound mode you have selected in step 1 flashes on the display.
Your setting is stored in memory.

5

Repeat the same procedure to store other settings.

To reset to the factory settings

Repeat the same procedure and reassign the preset values listed in the table on page 12.

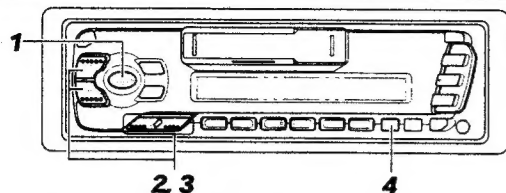
14

KS-FX440
KS-FX240

OTHER MAIN FUNCTIONS



Setting the clock



1 Press and hold the button for more than 2 seconds.
"CLOCK H," "CLOCK M," "LEVEL" or "AREA" appears on the display.

2 Set the hour.
1. Select "CLOCK H" if not shown on the display.
2. Adjust the hour.

3 Set the minute.
1. Select "CLOCK M."
2. Adjust the minute.

4 Start the clock.

To check the current clock time (changing the display mode)

Press DISP repeatedly. Each time you press the button, the display mode changes as follows.

During tuner operation:	During tape operation:	During CD operation:
Frequency ↔ Clock	Play mode ↔ Clock	Elapsed playing time ↔ Clock

- If the unit is not in use when you press DISP, the power turns on, the clock time is shown for 5 seconds, then the power turns off.

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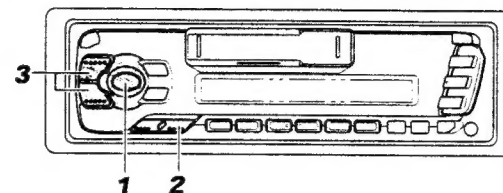


Selecting the level display

You can select the level display according to your preference. When shipped from the factory, the level indicator on the display shows the audio level setting.

AUDIO: Audio level indicator

OFF : Volume level indicator



1 Press and hold SEL for more than 2 seconds.
"CLOCK H," "CLOCK M," "LEVEL" or "AREA" appears on the display.

2 Select "LEVEL" if not shown on the display.

3 Select the desired mode with the button.

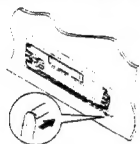
Detaching the control panel

You can detach the control panel when leaving the car. When detaching or attaching the control panel, be careful not to damage the connectors on the back of the control panel and on the panel holder.

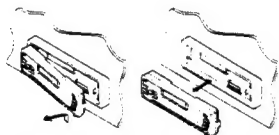
How to detach the control panel

Before detaching the control panel, be sure to turn off the power.

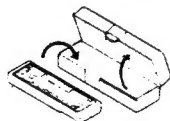
- 1 Unlock the control panel.



- 2 Lift and pull the control panel out of the unit.

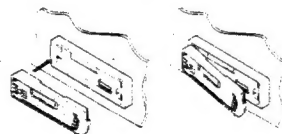


- 3 Put the detached control panel into the provided case.

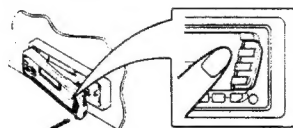


How to attach the control panel

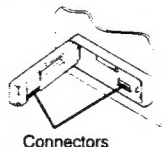
- 1 Insert the left side of the control panel into the groove on the panel holder.



- 2 Press the right side of the control panel to fix it to the panel holder.



Note on cleaning the connectors:
If you frequently detach the control panel, the connectors will deteriorate. To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.



Connectors

ENGLISH

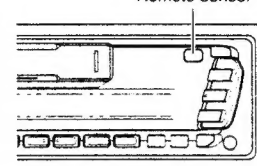
REMOTE OPERATIONS

This section is only for KS-FX440

Before using the remote controller:

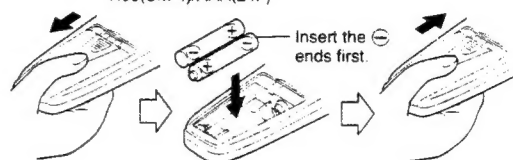
- Aim the remote controller directly at the remote sensor on the main unit. Make sure there is no obstacle in between.
- Do not expose the remote sensor to strong light (direct sunlight or artificial lighting).

Remote sensor



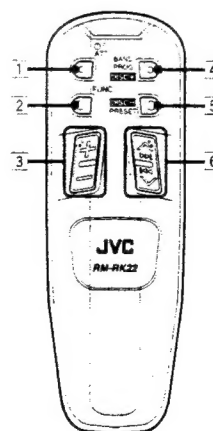
Installing the batteries

R03(UM-4)/AAA(24F)



When the controllable range or effectiveness of the remote controller decreases, replace the batteries – R03(UM-4)/AAA(24F).

Using the remote controller



- 1 Functions the same as the \odot/ATT button on the main unit.
- 2 Selects the source. Each time you press FUNC (function), the source changes.
- 3 * Functions as the +/- buttons on the main unit.
- 4 • Functions as the BAND button while listening to the radio. Each time you press the button, the band changes.
• Functions as the DISC + button while listening to the CD changer. Each time you press the button, the disc number increases, and selected disc starts playing.
• Functions as the PROG button while listening to the tape. Each time you press the button, the tape direction changes.
- 5 • Functions as the PRESET button while listening to the radio. Each time you press the button, the preset station number increases, and selected station is tuned in.
• Functions as the DISC - button while listening to the CD changer. Each time you press the button, the disc number decreases, and selected disc starts playing.
- 6 * • Functions as the station search buttons while listening to the radio.
• Functions as the fast-forward/rewind buttons or the Multi Music Scan buttons while listening to the tape.
• Functions as the fast-forward/reverse buttons or track selecting buttons while listening to the CD changer.

Note:

* These buttons cannot be used for the clock (CLOCK H/M), and FM/AM channel intervals (AREA) adjustments (see pages 15, 8).

CD CHANGER OPERATIONS

Read this section only when you used with a JVC CD automatic changer (separately purchased).

We recommend that you use one of the CH-X series with your unit.

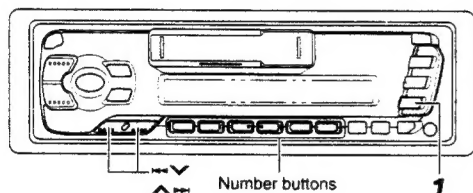
If you have another CD automatic changer, consult your JVC car audio dealer for connections.

- For example, if your CD automatic changer is one of the KD-MK series, you need a cord (KS-U15K) for connecting it to this unit.

Before operating your CD automatic changer.

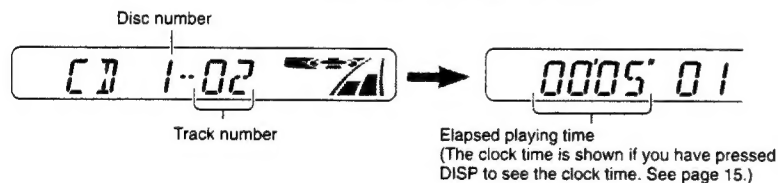
- Refer also to the instructions supplied with your CD changer.
- If no discs are in the magazine of the CD changer or the discs are inserted upside down, "NO CD" or "NO MAG" will appear on the display. If this happens, remove the magazine and set the discs correctly.
- If "RESET 1 - RESET 8" appears on the display, something is wrong with the connection between this unit and the CD changer. If this happens, check the connection, connect the connecting cord(s) firmly if necessary, then press the reset button of the CD changer.

Playing CDs



Select the CD automatic changer.

Play back starts from the first track of the first disc.
All tracks of all discs are played back.



Note on One-Touch Operation:

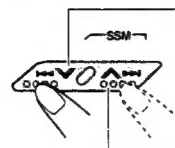
When you press CD-CH, the power automatically comes on. You do not have to press \odot ATT to turn on the power.

ENGLISH



To fast forward or reverse the track

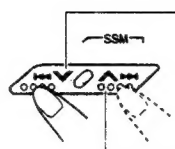
Press and hold \lll \ggg , while playing a CD, to reverse the track.



Press and hold \lll \ggg , while playing a CD, to fast forward the track.

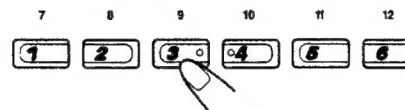
To go to the next track or the previous track

Press \lll \ggg briefly, while playing a CD, to go back to the beginning of the current track. Each time you press the button consecutively, the beginning of the previous track is located and played back.



Press \lll \ggg briefly, while playing a CD, to go ahead to the beginning of the next track. Each time you press the button consecutively, the beginning of the next track is located and played back.

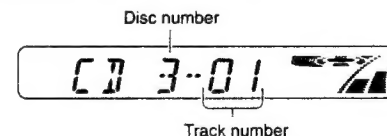
To go to a particular disc directly



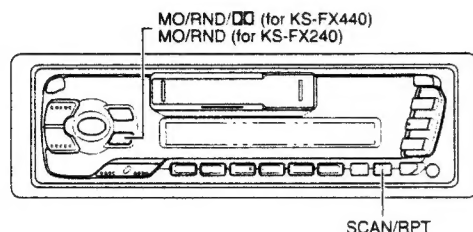
Press the number button corresponding to the disc number to start its playback.

- To select a disc number from 1 - 6:
Press 1 (7) - 6 (12) briefly.
- To select a disc number from 7 - 12:
Press and hold 1 (7) - 6 (12) for more than 1 second.

Ex. When disc number 3 is selected



Selecting CD playback modes



To play back tracks at random (Random Play)



Each time you press MO/RND/DO (mono/random/Dolby NR: for KS-FX440) or MO/RND (mono/random: for KS-FX240) while playing a CD, CD random play mode changes as follows:



Mode	RND Indicator	Plays at random
RND1	Lights	All tracks of the current disc, then the tracks of the next disc, and so on.
RND2	Flashes	All tracks of all discs inserted in the magazine.

To play back tracks repeatedly (Repeat Play)



Each time you press SCAN/RPT (Scan/Repeat) while playing a CD, CD repeat play mode changes as follows:



Mode	RPT Indicator	Plays repeatedly
RPT1	Lights	The current track (or specified track).
RPT2	Flashes	All tracks of the current disc (or specified disc).

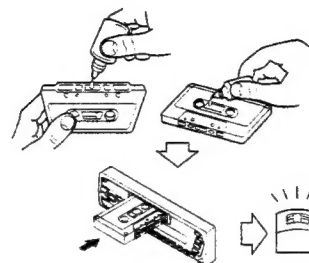
ENGLISH

MAINTENANCE

To extend the lifetime of the unit

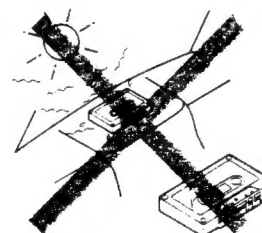
This unit requires very little attention, but you will be able to extend the life of the unit if you follow the instructions below.

To clean the heads



- Clean the heads after every 10 hours of use using a wet-type head cleaning tape (available at an audio store). When the head becomes dirty, you may realize the following symptoms:
 - Sound quality is reduced.
 - Sound level decreases.
 - Sound drops out.
- Do not play dirty or dusty tapes.
- Do not touch the highly-polished head with any metallic or magnetic tools.

To keep the tape clean



- Always store the tapes to their storage cases after use.
- Do not store tapes in the following places:
 - Subject to direct sunlight
 - With high humidity
 - At extremely hot temperatures

CAUTIONS:

- Do not play the tapes with peeling labels; otherwise, they can damage the unit.
- Tighten tapes to remove slack since loose tape may become entangled with the mechanism.
- Do not leave a cassette in the cassette compartment after use, as the tape may become slack.

The function below is also provided to ensure the longer life of this unit.

Ignition key-off Release/ Ignition key-on play

- When you turn off the ignition key with a cassette in the compartment, the unit automatically releases the tape from its head.
- When you turn on the ignition key with a cassette in the compartment, playback automatically starts.

KS-FX440
KS-FX240

!! SPECIFICATIONS

AUDIO AMPLIFIER SECTION

Maximum Power Output:

Front: 40 watts per channel

Rear: 40 watts per channel

Continuous Power Output (RMS):

Front: 16 watts per channel into 4 Ω , 40 to 20,000 Hz at no more than 0.8% total harmonic distortion.

Rear: 16 watts per channel into 4 Ω , 40 to 20,000 Hz at no more than 0.8% total harmonic distortion.

Load Impedance: 4 Ω (4 to 8 Ω allowance)

Tone Control Range

Bass: ± 10 dB at 100 Hz

Treble: ± 10 dB at 10 kHz

Frequency Response: 40 to 20,000 Hz

Signal-to-Noise Ratio: 70 dB

Line-Out Level/Impedance: 1.0 V/20 k Ω load (250 nWb/m)

TUNER SECTION

Frequency Range

FM: 87.5 to 107.9 MHz

(with channel interval set to 200 kHz)

87.5 to 108.0 MHz

(with channel interval set to 50 kHz)

AM: 530 to 1,710 kHz

(with channel interval set to 10 kHz)

531 to 1,602 kHz

(with channel interval set to 9 kHz)

[FM Tuner]

Usable Sensitivity: 11.3 dBf (1.0 μ V/75 Ω)

50 dB Quieting Sensitivity:

16.3 dBf (1.8 μ V/75 Ω)

Alternate Channel Selectivity (400 kHz):

65 dB

Frequency Response: 40 to 15,000 Hz

Stereo Separation: 35 dB

Capture Ratio: 1.5 dB

[AM Tuner]

Sensitivity: 20 μ V

Selectivity: 35 dB

CASSETTE DECK SECTION

Wow & Flutter: 0.11% (WRMS)

Fast-Wind Time: 100 sec. (C-60)

Frequency Response:

50 to 16,000 Hz (± 3 dB)

Signal-to-Noise Ratio: (Normal tape)

(Dolby B NR-ON):

64 dB (For KS-FX440 only)

(Dolby B NR-OFF): 56 dB

Stereo Separation: 40 dB

GENERAL

Power Requirement

Operating Voltage: DC 14.4 volts (11 to 16 volts allowance)

Grounding System: Negative ground

Dimensions (W x H x D)

Installation Size:

182 x 52 x 150 mm

(7-3/16" x 2-1/16" x 5-15/16")

Panel Size: 188 x 58 x 14 mm

(7-7/16" x 2-5/16" x 5/8")

Mass: 1.4 kg (3.1 lbs) (excluding accessories)

Design and specifications subject to change without notice.

If a kit is necessary for your car, consult your telephone directory for the nearest car audio specialty shop.

TROUBLESHOOTING !!

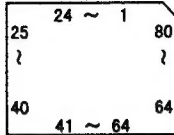
What appears to be trouble is not always serious. Check the following points before calling a service center.

Symptoms	Causes	Remedies
• A cassette tape cannot be inserted.	You have tried to insert a cassette in the wrong way.	Insert the cassette with the exposed tape facing right.
• Cassette tapes become hot.	This is not a malfunction.	—————
• Tape sound is at very low level and sound quality is degraded.	The tape head is dirty.	Clean it with a head cleaning tape.
• Sound is sometimes interrupted.	Connections are not good.	Check the cords and connections.
• Sound cannot be heard from the speakers.	The volume control is turned to the minimum level.	Adjust it to the optimum level.
	Connections are incorrect.	Check the cords and connections.
• SSM (Strong-station Sequential Memory) automatic preset does not work.	Signals are too weak.	Store stations manually.
• Static noise while listening to the radio.	The antenna is not connected firmly.	Connect the antenna firmly.
	CDs are inserted incorrectly.	Insert them correctly.
• "NO CD" or "NO MAG" appears on the display.	No CD is in the magazine.	Insert CDs into the magazine.
• "RESET 8" appears on the display.	This unit is not connected to a CD changer correctly.	Connect this unit and the CD changer correctly and press the reset button of the CD changer.
• "RESET 1-RESET 7" appears on the display.	—————	Press the reset button of the CD changer.
• The unit does not work at all.	The built-in microcomputer may function incorrectly due to noise, etc.	Press \odot /1 ATT and SEL at the same time for more than 2 seconds to reset the unit. (The clock setting and preset stations stored in memory are erased.)

Discription of Main IC's

■ LC72362N-9486(IC701):System Controller

1. Terminal Layout



2. Description

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XIN	I	Crystal oscillator	41	MOTOR	O	Main motor control output
2	GND	-	To GND	42	SUBMO+	O	Sub motor control output (+)
3	J BUS SI	I	Bus serial data input from CP751	43	SUBMO-	O	Sub motor control output (-)
4	J BUS SO	O	Bus serial data output to CP751	44	BEEP	-	Non connect
5	J BUS SCK	O	Bus serial clock output to CP751	45	TAPE.IN	I	TAPE in detector input
6	J BUS I/O SEL	O	BUS I/O switch signal output	46	STANDBY	I	STANDBY switch detector input
7	NC	-	Non connect	47	TAPE.END	I	TAPE END switch detector input
8	LCD SO	O	Serial data output to IC651	48	MODE	I	Position detection input of Mecha mode
9	LCD SCK	O	Serial clock output to IC651	49	F/R SENSE	I	FORWARD/REVERSE switch detector
10	LCD CE	O	Chip enable output to IC651	50	MS.IN	I	Music sensor input
11	NC	-	Non connect	51	SD/ST	I	Station detector and ST input
12	E.VOL SO	O	Serial data output	52	NC	-	Non connect
13	E.VOL SCK	O	Serial clock output	53	DETACH	-	To GND
14	NC	-	Non connect	54	NC	-	Non connect
15	TUNER ILLUM	-	Non connect	55	J BUS INT	I	BUS interruption signal detection communication
16	TAPE ILLUM	-	Non connect	56	REMOCON	-	To GND
17	CD ILLUM	-	Non connect	57	FM/AM	I	Change over the FM/AM input
18	DIMMER OUT	-	Non connect	58	DOLBY	-	Non connect
19	NC	-	Non connect	59	NC	-	Non connect
20	NC	-	Non connect	60	MUTE	-	The mute time is controlled by the connected capacitor when changing over the FM/AM
21	NC	-	Non connect				
22	NC	-	Non connect				
23	NC	-	Non connect	61	MEMORY DET	I	Memory detector input
24	NC	-	Non connect	62	LEVEL METER	I	Level memory input
25	KS1	-	Non connect	63	SMETER	I	Signal meter input
26	KS0	O	Initializing output port	64	KEY 2	I	Momentary key input
27	K3	I	Initializing input port	65	KEY1	I	Momentary key input
28	K2	I	Initializing input port	66	KEY0	I	Momentary key input
29	K1	-	Non connect	67	ACCDET	-	Power supply
30	K0	I	Initializing input port	68	SENS	-	To GND
31	Vdd	-	Power supply	69	AM IF COUNT	-	Non connect
32	TEST	I	Test input	70	FM IF COUNT	I	AM/FM Frequency detection
33	FF/REW MODE	O	H is output during FF/REW when the TAPE is OFF	71	NC	-	Non connect
34	SEEK/STOP	O	Output the "If signal request"	72	NC	-	Non connect
35	MONO	O	Monaural and stereo change over output	73	Vdd	-	Power supply
36	RADIO/TAPE	-	Non connect	74	AM OSC	I	Input the local oscillator signal of AM
37	BEEP LEVEL	-	Non connect	75	FMOSC	I	Input the local oscillator signal of FM
38	POWER CNT	O	Power control output	76	Vss	-	Power supply
39	Acc	-	Power supply	77	NC	-	Non connect
40	KICK	O	Driving voltage control terminal of motor	78	ED	O	PLL Error signal output
				79	TEST 1	-	To GND
				80	XOUT	O	Crystal oscillator